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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,127	04/22/2004	Paul A. Gassoway	063170.6962	7446

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EXAMINER

TRAORE, FATOUMATA

ART UNIT	PAPER NUMBER
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2136

MAIL DATE	DELIVERY MODE
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08/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/830,127

Applicant(s)

GASSOWAY, PAUL A.

Examiner

Fatoumata Traore

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response of the original filing of April 24th, 2004. Claims 1-48 are pending and have been considered below.

Claim Objections

1. Claims 15, 31, and 47 are objected to because of the following informalities: the claims end with a double period. Appropriate correction is required.

Claim Rejections - 35 USC § 101

Claim 33-48 are drawn to a computer readable medium, which the applicant has defined in the specification (page 6, line 1) to encompass an electronic transmission signal. The Office considers an electronic signal to be a form of energy. Energy is not a series of steps or acts and this is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and therefore not a compilation of matter. Thus, an electronic transmission signal does not fall within any of the four categories of invention. Therefore, Claims 33-48 are not statutory.

Claims 1-3, 17-19 are non-statutory. The claims do not appear to recite a physical transformation and thus appear to be relying on producing a useful, concrete, tangible result to establish a practical application. Claim 1 recites the step of providing, identifying, opening, determining, and performing without producing a tangible result.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 17-21, 33-37 are rejected under 35 U.S.C. 102(b) as being anticipated by McGee et al (US 6694434).

Claims 1, 17, 33: McGee et al discloses a method, a system, and a computer recording medium for controlling program execution and program distribution comprising:

- i. Providing a database of known good software (application registration data is a list of hash value of approved application) (column 5, lines 13-32);
- ii. Opening a file (if an executable file open commencement request is detected) (column 11, lines 3-35);
- iii. Identifying the file being opened (the processor retrieves file filter criteria as shown in block 510. File filter criteria include any suitable data identifier) (column 11, lines 3-35);
- iv. Determining whether an entry exists in the database of known good software for the identified file (As shown in block 516, the node uses its hash value

generator to generate a hash of the program designated for execution and compares the generated hash value with the stored hash values on the approved hash list. This is shown in block 518. If the generated hash value appears on the approved hash list, the processor grants executability to the program designated for execution as shown in block 520) (column 11, line 37 to column 12 line 4); and

v. Performing at least one of allowing and preventing the opening of the file from continuing based on the result of the determination (As such, the process may occur in fore ground or background operation and prevents an executable program from being run if it does not appear on the approved hash list. As shown in block 522, if the hash value generated by the receiving processor does not match the hash value on the approved hash list, the system prevents the executable file data from executing and may optionally record the non-approval condition based on the comparison, log the event and/or inform the user) (column 11, line 37 to column 12 line 4).

Claims 2, 18, 34: **McGee et al** discloses a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 1, 17, and 33 above, and further discloses that the file comprises an executable file (The system may compare a location of the executable file data

with the location of approved executable file data indicated by the application registration data in the list) (column 4, lines 7-11, column 8, lines 60-65).

Claims 3, 19, 35: **McGee et al** discloses a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 2, 18, and 34 above, and further discloses the executable file comprises an application (the application registration data contains a plurality of first unique application verification) (column 3 line 64 to column 4 line 4).

Claims 4, 20, 36: **McGee et al** discloses a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 1, 17, and 33 above, and further discloses that the step of identifying the file being opened comprises determining a unique value of the file, the unique value being a hash value generated according to a hashing algorithm and comparing the unique value to entries in the database of known good software (an approved stored list of hash values for approved executable files for programs, for example, is generated by a trusted party. Prior to allowing individual program execution by the first-party, the first-party generates or retrieves a second unique application verification data element, such as a hash value, of an executable file designated for execution on a processing device, such as a computer or the communication unit. The stored hash values from the list are evaluated and compared to the generated hash value. The first-party

system grants program executability on a per-program basis based on the comparison of the pre-stored hash values and hash value generated by the party having the program designated for execution)(column 4, lines 5-35).

Claims 5, 21, 37: **McGee et al** discloses a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 4, 20, and 36 above, and further discloses that the step of the performing at least one of allowing and preventing the opening of the file from continuing comprises allowing the file to continue to be opened if it is determined that the determined unique value corresponds to an entry in the database of known good software (As such, the process may occur in fore ground or background operation and prevents an executable program from being run if it does not appear on the approved hash list. As shown in block 522, if the hash value generated by the receiving processor does not match the hash value on the approved hash list, the system prevents the executable file data from executing and may optionally record the non-approval condition based on the comparison, log the event and/or inform the user) (column 11, line 37 to column 12 line 4).

4. Claims 6, 12-16, 22, 28-32, 38, 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McGee et al** (US 6694434) in view of **Dozortsev** (US 6944772).

Claims 6, 22, 38: McGee et al discloses a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 1, 17, and 33 above, but does not explicitly disclose a step of providing a database of unfamiliar software. However, Dozortsev discloses a method, a system, and a computer-recording medium for identifying verification of executable code, which further discloses a database of unfamiliar software and determining whether an entry exists in the database of unfamiliar software for the identified file (if the signature is flagged "received under investigation", the message reading "the executable code is being investigate" is forwarded to the client)(column 7 line 14 to column 8 line 41). Therefore, it would be obvious to one having ordinary skills in the art at the time the invention was made to provide a database of unfamiliar software in McGee et al's disclosure. One would have been motivated to provide such a database in order to maintain the integrity of the system by not allowing malicious code to be executed.

Claims 12, 28, 44: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 6, 22, and 38 above, and McGee et al further discloses a step of adding an entry to the database of unfamiliar software if an entry for the file being opened is not found in at least one of the database for known good software and the database for unfamiliar software (the trusted

authority selects the candidate programs that, for example, are to be passed through a hash function and made part of the approved hash list. The central authority may obtain this information by entry through a graphic user interface by a system administrator or may have the information automatically downloaded from another source)(column 12, lines 19-63).

Claims 13, 29, 45: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 6, 22, and 38 above, and McGee et al further discloses a step of placing at least one operating system call hook if it is determined that an entry exists in the database for unfamiliar software (a matching of hash values based on the entire executable file from a list of approved hash values results in the calling application being granted access to execute) (column 13, lines 30-38).

Claims 14, 30, 46: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 13, 29, and 45 above, and McGee et al further discloses that the operating system call hook notifies a Trojan notification service that a file corresponds to an entry in the database for unfamiliar software (If the computed unique application verification data does not match the stored unique application verification data, the user is notified that the application is listed in the

application registration but may have been upgraded or it is an unauthorized application as indicated in block 74) (column 8, lines 16-22).

Claims 15, 31, 47: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 14, 30, and 46 above, and McGee et al further discloses that the Trojan notification service prompts a user for input regarding whether the operating system call should be passed along (The system then generates a signal (for example, resulting in a prompt to the user) (column 8, lines 25-30).

Claims 16, 32, 48: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 15, 31, and 47 above, and McGee et al further discloses that the step of opening of the file is allowed to proceed if the operating system call is passed along (The user is then prompted to indicate whether execution privileges should be granted to the application as shown in block 86. This may be done, for example, through a graphic user interface. If the user responds indicating that execution privileges should be granted, the application is then added to the application registration list as shown in block 88)(column 8, lines 41-65).

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5. Claims 7, 23, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McGee et al** (US 6694434) in view of **Dozortsev** (US 6944772) as applied to claims 6, 22, and 38 above, and further in view of **Liu et al** (US 6760752).

Claims 7, 23, 39: **McGee et al** and **Dozortsev** disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 6, 22, and 38 above, while neither of them explicitly discloses a step of providing a time stamp. However, **Liu et al** discloses a method, a system and a computer recording medium for securely transferring a message from a sender to a receiver, which further discloses a step of providing date stamp information for each entry in the database for unfamiliar processes indicating a date on which the entry was first made (a time stamp process and a status retrieval process) (column 25 line 57 to column 26 line 45, Figs. 2 B item 262, 8 A and 8B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method, system, and computer recording medium of **McGee et al** and **Dozortsev** such as to provide a time stamp information for each entry. The motivation of doing so would have been to ensure the integrity of information sent over a network.

Claims 10-11, 26-27, 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McGee et al** (US 6694434) and **Dozortsev** (US 6944772) in view of **Liu et al** (US

6760752) and further in view of Verma (US 7140042).

Claims 10, 26, 42: McGee et al, Dozortsev, and Liu et al disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 7, 23, and 39 above, while neither of them explicitly discloses a step of determining the amount of time. However, Verma discloses a method, a system and a computer recording medium preventing software piracy, which further discloses a step of determining an amount of time an entry has been in the database for unfamiliar processes by comparing the date stamp information with a current date (column 5, lines 8-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method, system, and computer-recording medium of McGee et al, Dozortsev and Liu et al such as to determine a time limit. The motivation of doing so would have been to keep in track of the usage of the application.

Claims 11, 27, 43: McGee et al, Dozortsev, Liu et al and Verma disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 7, 23, and 39 above, and Dozortsev further discloses a step of moving an entry from the database for unfamiliar software to the database for known good software if it is determined that the entry has been in the database for unfamiliar software for a sufficient

period of time (column 10, lines 39-56, Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method, system, and computer-recording medium of McGee et al, Lui et al and Verma such as to determine a time limit. The motivation of doing so would have been to ensure the integrity of information sent over a network.

6. Claims 8-9, 24-25, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGee et al (US 6694434) in view of Dozortsev (US 6944772) in further in view of Verma (US 7140042).

Claims 8, 24, 40: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 6, 22, and 38 above, while neither of them explicitly discloses a step of providing a number of times corresponding to the opening of an entry. However, Verma discloses a method, a system and a computer recording medium preventing software piracy, which further discloses a step of providing a value for each entry in the database for unfamiliar software indicating a number of times a file corresponding to the entry was opened (column 11, lines 44-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method, system, and computer-recording medium of McGee et al and Dozortsev such as to provide

the number of time the was opened. The motivation of doing so would have been to keep in track of the usage of the application.

Claims 9, 25, 41: McGee et al and Dozortsev disclose a method, a system, and a computer recording medium for controlling program execution and program distribution as in claims 8, 24, and 40 above, while neither of them explicitly discloses a step of providing a number of times a file has been executed.

However, Verma discloses a method, a system and a computer-recording medium preventing software piracy, which further discloses a step of providing a value comprises the number of times an executable in file has been executed (column 11, lines 44-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method, system, and computer-recording medium of McGee et al and Dozortsev such as to determine the number of time a file has been executed. The motivation of doing so would have been to keep in track of the usage of the application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatoumata Traore whose telephone number is (571)

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270-1685. The examiner can normally be reached Monday through Thursday from 7:00 a.m. to 4:00 p.m. and every other Friday from 7:30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nassar G. Moazzami, can be reached on (571) 272 4195. The fax phone number for Formal or Official faxes to Technology Center 2100 is (571) 273-8300. Draft or Informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 270-2685.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-2100.

FT

Nassar G. Moazzami

Wednesday, August 15, 2007

Supervisory Patent Examiner


8/15/07